A release from WONderland: endoscopic ultrasonography-guided reconnection of disconnected pancreatic ducts across a walled-off necrosis cavity

Disconnected pancreatic duct syndrome (DPDS) in cases with walled-off necrosis (WON) is associated with recurrence of pancreatic fluid collection [1] and new-onset diabetes [2]. Transpapillary stent placement across disconnected pancreas has been attempted but the technical success rate of this procedure is low [3, 4]. An 82-year-old man was hospitalized for endoscopic management of DPDS. Computerized tomography revealed a disconnected pancreas by the intervening WON and endoscopic retrograde pancreatography confirmed complete disconnection of the main pancreatic duct (MPD) (▶Fig. 1). As transpapillary stent placement across the disconnected MPD was unsuccessful, we proceeded to reconnection of the MPD using a rendezvous technique [5].

First, the distal MPD was punctured using a 19-gauge needle (EZshot3; Olympus Medical, Tokyo, Japan) under endoscopic ultrasonography (EUS) guidance (▶Fig. 2). Pancreatogram revealed complete obstruction of the MPD at the pancreas body and a plastic stent was inserted in a retrograde fashion into the tail of the pancreas. In the second session after fistula maturation, a guidewire was advanced through the occluded MPD, and a plastic stent was inserted into the WON cavity. In the third session, a guidewire was successfully advanced across the disconnected pancreas into the downstream MPD, and then the duodenum (▶Fig. 3 a). Leaving the guidewire in situ, a duodenoscope was advanced to the ampulla, and the guidewire left in the duodenum was withdrawn through the working channel in a rendezvous fashion. Subsequently, by using a double-lumen catheter (Uneven double lumen cannula; Kaneka, Osaka, Japan), a second guidewire was successfully advanced into the pancreas tail (▶Fig. 3 b). Finally, a 5-Fr transpapillary stent was successfully placed across the disconnected pancreas. Although short-term outcomes of WON have improved due to the development of endoscopic treatment, DPDS potentially poses long-term consequences for patients. This EUS-guided rendezvous
approach (▶Video 1) may be an effective treatment option that enables the reconnection of a completely disconnected MPD.

Endoscopy_UCTN_Code_TTT_1AS_2AD

Competing Interests

Y. Nakai declares research funding from Boston Scientific Japan, Century Medical, Fujifilm, Gadelius Medical, Hitachi Medical, Kaneka, and Medico’s Hirata; this work was not supported by any of those companies. M. Fujishiro received lecture honoraria from Olympus Co. and Fujifilm Co., and research grant from Olympus Co., and Fujifilm Co. outside the submitted work. T. Sato, T. Saito, and T. Hamada declare that they have no conflict of interest.

The authors

Tatsuya Sato1, Tomotaka Saito1, Tsuyoshi Hamada2*, Yousuke Nakai1,2*, Mitsuhiro Fujishiro1
1 Department of Gastroenterology, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan
2 Department of Endoscopy and Endoscopic Surgery, The University of Tokyo Hospital, Tokyo, Japan

* These authors are members of the WONDERFUL (WON and peripancreatic fluid collection) study group in Japan.

Corresponding author

Yousuke Nakai, MD, PhD
Department of Endoscopy and Endoscopic Surgery, The University of Tokyo Hospital, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-8655, Japan
ynakai-tky@umin.ac.jp

References


Bibliography

Endoscopy
DOI 10.1055/a-1934-9585
ISSN 0013-726X
published online 2022 © 2022, The Author(s).
This is an open access article published by Thieme under the terms of the Creative Commons Attribution-NonDerivative-NonCommercial License, permitting copying and reproduction so long as the original work is given appropriate credit. Contents may not be used for commercial purposes, or adapted, remixed, transformed or built upon. (https://creativecommons.org/licenses/by-nc-nd/4.0/)
Georg Thieme Verlag KG, Rüdigerstraße 14, 70469 Stuttgart, Germany

ENDOSCOPY E-VIDEOS
https://eref.thieme.de/e-videos

Endoscopy E-Videos is an open access online section, reporting on interesting cases and new techniques in gastroenterological endoscopy. All papers include a high quality video and all contributions are freely accessible online. Processing charges apply (currently EUR 375), discounts and waivers acc. to HINARI are available.

This section has its own submission website at https://mc.manuscriptcentral.com/e-videos